APPENDIX 1
TAB C
REBUILDING AND RECONSTRUCTION

I. INTRODUCTION

A. Purpose

The purpose of this Tab is to describe rebuilding and reconstruction operations from an emergency or disaster occurring in the State of Washington.

B. Scope

Rebuilding and reconstruction operations will vary depending on the disaster and its magnitude. When a disaster causes widespread loss of buildings, bridges and roads, and other infrastructure elements, opportunities may arise from misfortune to re-shape and rebuild with higher standards, improved arrangements, or more capacity. Consideration must be given to:

1. Special legislation for procedures, regulations, standards, direct assistance, special levies, appropriations, emergency contingency funds, bond issues, and other matters. Planners must consider lead times versus federal and other assistance deadlines.

2. Urban Renewal

    a. Adhere to required time frames for disaster grants and other assistance.

    b. Use tax increment financing (where applicable) to fund infrastructure betterments and other community improvements.

    c. Review state and federal laws for the process of redevelopment.

    d. Use as a planning opportunity for growth management and enhanced disaster mitigation.

3. Combine Disaster Assistance with Local Capital Programs

    a. Combine funding potential to stretch the effectiveness of available local funds.

    b. Ensure knowledge of the rules for the various funds involved (particularly when seeking two or more types of funds or matching funds from a single or multiple sources).

4. Enhance Lifeline Systems

    a. Increased capacity when needed.

b. Improved performance and reliability.

c. Reduced future disaster risk or improved hazard mitigation.

d. Improved access.

e. Improved environmental performance (air quality, water quality, etc.), including conformance with regulations.

f. Improved potential for economic development.

g. Improved esthetics and mandated betterments as conditions for repair, rehabilitation, or replacement.

h. Consider abandonment of repetitive loss areas and relocation for better service.

5. Permits

a. Identify permitting requirements early.

b. Include permitting requirements as part of recovery management planning.

c. Identify needs for environmental assessments for recovery projects.

d. Streamline procedures and reduce requirements to facilitate and expedite recovery and reconstruction.

e. Find alternatives when buildings and facilities are not eligible under law for permits to repair or rehabilitate.

6. Improved Construction and Planning Standards

a. Benefit from analysis of building and infrastructure failure related to the disaster.

b. Revise local and state codes and standards to minimize similar failures in future disaster events.

c. Review the possible revision or the strengthening of codes to facilitate community restoration.

7. Tapping Possible Sources of Funds

a. Federal Agencies

(1) Housing and Urban Development (HUD) grants through the Department of Community, Trade and Economic Development.

(2) Department of Transportation (DOT), demonstration highway/bridge projects Federal Highway Administration (FHWA) and UMTA transit assistance through the WSDOT.

(3) Environmental Protection Agency (EPA) wastewater, rural water and sewer grants.

(4) Civil Defense program flood control funds through DOT.

(5) Economic Development Programs. (EDA).

Annex F lists disaster relief programs available.

b. State and Regional Programs

(1) Bond Programs.

(2) State capital programs.

(3) Historic preservation grants.

(4) Economic development assistance.

c. Private Programs

(1) Foundations.

(2) Businesses, associations, individuals.

(3) Educational endowments.

(4) Research grants.

II. CONCEPT OF OPERATIONS

A. General

It is difficult to separate response and recovery into neat, clearly defined, and separate entities. It is also difficult to put rebuilding and reconstruction into a neat little package. Rebuilding and reconstruction is part of restoration, which is an element of the recovery process. This activity starts way back in the response phase of a disaster with the initial damage assessment or windshield surveys performed by Red Cross volunteers. It continues with more detailed surveys and disaster assessments conducted by engineers. Similarly, rebuilding and reconstruction itself starts with debris removal, restoration of transportation systems, electricity, telecommunications, water and wastewater systems, medical systems, and finally repair of damaged structures and replacement of

destroyed ones. It is not a sequential process, but more of a concurrent process, with conflicting demands and priorities.

B. Procedures

1. Damage Assessment

   a. Damage assessment depends on the type of disaster. In the aftermath of firestorms, damage assessment constitutes determining the location of the fire line and the number of burned buildings, homeless, total injuries, and deaths. In floods, it defines the limits of flooding, the amount or flood damage to buildings, bridges, roads, and the number of homeless and deaths. In earthquakes, damage assessment concerns damaged buildings, bridges, roads, utilities, and the number of homeless, injuries and deaths.

   b. Many forms have been developed to summarize damage assessment, and are included in the *Disaster Assistance Guide for Local Governments*. Forms are fine if available, if not, plain notepaper may be used. The information must identify:

      (1) Time of inspection.

      (2) Location and address.

      (3) Type of damage.

      (4) Dollar estimate.

      (5) Who made the estimate.

   c. Initial (windshield) damage assessment addresses power lines down, water main broken, building damage, etc.

   d. In building inspections it is prudent to err on the safe side. If you think buildings should be closed until a structural engineer can check it out, close the building. If you think a bridge should be closed, notify maintenance so they can place barricades. Do so recognizing the potential economic factors and liabilities.

   e. Finite accuracy is not needed in the initial damage assessment estimate of repairs. The nearest $1,000 in your judgment will do. You may find damage such as broken water mains that you would not know how to estimate the cost of repairs. Report the type of damage and the location. The experts from the responsible agency can handle the cost details in those instances during the formal joint federal/state/local preliminary damage assessment.

2. Restoration of Essential Services

a. Debris Removal

(1) Public works and engineering are responsible for the overall coordination of state and local public jurisdiction debris removal efforts.

(2) Debris removal efforts focus on clearing major transportation routes to allow for the movement of emergency vehicles, traffic, and emergency resources and supplies. After major transportation routes have been cleared, debris will then be removed from secondary roadways, residential and local roadways, and public parks as prioritized in local or state plans.

(3) Debris disposal becomes a problem after a disaster. Landfill capability can quickly be overburdened. Burning provides the expeditious means of disposal, but can become a public health hazard. An authorized burn site away from population concentrations must be identified and proper authorization and permits obtained. Construction debris should be separated and disposed of accordingly.

b. Transportation Systems

(1) Damage to transportation systems will influence the accessibility of disaster relief services and supplies, as well as economic continuity. Restoration of transportation systems is designed to make sure that those systems have the capacity to facilitate the movement of emergency personnel, vehicles, equipment, and supplies.

(2) State and local officials need to establish an inventory of available transportation services and resources, prioritize and allocate transportation resources and services to support disaster assistance missions, and control air and marine traffic into the disaster areas. Private roads and bridges are the responsibility of individual owners. Public/private partnerships should be formed prior to a disaster to provide mutual support.

c. Electricity

Restoration of electrical service will begin as soon as major transportation routes are cleared of debris. The Office of Trade and Economic Development Energy Division will assess damage to electric power and fuel systems, assess energy supply and demand, and identify resource requirement to repair damaged systems. They will work closely with local utilities to establish

priorities for repair of damaged energy systems and to provide energy sources of fuel and power. Some private repairs may be required before reconnection is possible.

d. Telecommunications

Local Emergency Management will review inventories of public and private communications equipment and resources available to support recovery efforts and make necessary arrangements to deploy this equipment and resource to the disaster areas. Local Emergency Management will implement a temporary emergency telecommunications system for use by emergency personnel and the general public. Additional equipment, such as transportable switchboards, portable satellite uplinks, microwave systems, and towers, may be made available as needed either through state and federal agencies or through commercial vendors upon depletion of local resources and mutual aid.

e. Water and Wastewater Systems

If potable water systems are contaminated, local and state departments of health will be notified by local and state agencies to determine the appropriate protective actions to be taken. Public works and engineering support necessary to repair or restore damaged water and wastewater systems will be coordinated with local utilities. Additional equipment, such as generators and pumps necessary for wells supplying water, operating lift stations, and repairing broken water mains needs to be identified, prioritized and repaired.

3. Long-term Recovery

a. Long-term recovery efforts focus on community redevelopment and restoring the economic viability of the disaster areas. This requires a substantial commitment of time and resources by all levels of governmental and non-governmental organizations. These efforts include:

(1) Restoring public infrastructure and social services damaged by the emergency or disaster.

(2) Re-establishing an adequate supply of housing.

(3) Restoring lost jobs.

(4) Restoring the economic base of the disaster area.

b. Repair of Damaged Structures

(1) Repair of overpasses, bridges and roadbeds to restore transportation will take first priority after an earthquake,

food, avalanche, volcanic eruption or other interruption of a major transportation system. Interruption of the I-5 corridor in western Washington would have catastrophic consequences on the state's transportation system.

(2) Thousands of buildings could be damaged or destroyed in an earthquake. Some buildings, or portions of buildings, could pose an immediate threat to adjacent property or public rights-of-way. These need to be dealt with quickly. In many instances demolition might take priority over reconstruction efforts. Emergency orders may be required by local jurisdictions authorizing public works personnel to perform abatement work.

(3) Standards of repair must be adopted. These will vary with the circumstance and the local jurisdiction. It should be predetermined whether the area of repair should comply with all applicable codes. For instance, if the structure has received above a given percentage of damage, should the whole structure require upgrade? Waivers might be granted where repairs to upgraded standards are economically impractical or infeasible.

(4) In establishing standards of repair, authorities may decide that the local threat of recurrence of an earthquake, flooding or other calamity requires buildings above substantial damage, identified as a minimum threshold by FEMA, be upgraded to current codes. Hazard mitigation efforts must begin with those buildings demonstrated most susceptible to recurrence of the disaster.

(5) Buildings of historical significance may be eligible for consideration under provisions of the State Historical Building Code.

(6) The rebuilding effort will require significant state, local jurisdiction, and community involvement from architects, engineers, building owners, business associations, and preservationist concerns. Many will have conflicting views, priorities and requirements. The state may have to establish a board of disaster appeals to review damage assessment reports, requests for variances, and expedite determination of appeals.

(7) Proposed ordinances must be quickly reviewed, and variance implications determined. A lack of precedent and a clear definition of standards for repair and upgrading of disaster-damaged buildings and the need for quick decision will make the task more difficult. Quick adoption of streamlined procedures, with public input, will continue

the process of recovery and hopefully mitigate the effects of the next event.

C. Coordination for Long Term Recovery

EMD will coordinate the handling of federal funds through FEMA. Recovery staff will provide technical assistance to local governments and private not-for-profit organizations to gain access to state and federal funding programs. They will establish and maintain contact with key state and local officials to ensure effective communications and problem solving.

D. Close Out

1. When recovery efforts have been sufficiently completed, the State Coordinating Officer will recommend to the Governor, or his authorized representative, that the State Recovery Coordinating Office be closed.

2. The appropriate state offices will continue to administer the disaster recovery programs in a way to meet federal and fiscal close out requirements.